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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/713,111

11/17/2003

Shoji Inagaki

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11/02/2005

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EXAMINER

ARTHUR JEANGLAUDE, GERTRUDE

ART UNIT

PAPER NUMBER

3661

DATE MAILED: 11/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

10/713,111

**Applicant(s)**

INAGAKI, SHOJI

**Examiner**

Gertrude Arthur-Jeanglaude

**Art Unit**

3661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 17 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 November 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) .  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>5/03/04</u> . | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Claim Rejections - 35 USC § 112***

Claim 2 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 2, line 2, it is unclear what is being obtained.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-7, 9-14, 16-19, are rejected under 35 U.S.C. 102(b) as being anticipated by Shinmura et al. (U.S. Patent No. 6,269,307).

As to claims 1, 9, 16, Shinmura et al.. disclose a vehicle behavior control system comprising a controller (u) as shown in Fig. 2 that obtains a normal vehicle state value based on an operation amount of a vehicle operating member performed by a vehicle operator, and controls a vehicle behavior (See Figs. 22-23; Fig. 33, S3) based on an actual vehicle state value and the normal vehicle state value, wherein the controller estimates an amount of correction (See Fig. 33; M7; Fig.36) with respect to the vehicle operating member by the vehicle operator, and obtains the normal vehicle state value based on the estimated amount of correction and an actual operation amount.

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As to claim 2, Shinmura et al. disclose in Fig. 9 a calculation wherein one would inherently have the controller obtains by subtracting the estimated amount of correction from the actual operation amount, and obtains the normal vehicle state value based on the corrected operation amount (See Figs. 23-23, 27, 33, M7).

As to claims 3, 10, Shinmura et al. disclose the controller estimates the vehicle behavior based on the actual vehicle state value and the normal vehicle state value (See Fig. 6), and control the vehicle behavior based on the estimated result (See Fig. 33, M7; Fig. 34; col. 5, lines 40-49, 60-67).

As to claims 4, 11, Shinmura et al. disclose the controller obtains the normal vehicle state value based on the amount of operation with respect to the vehicle operating member performed by the vehicle operator, and controls the vehicle behavior by controlling an actuator (17) (See Fig. 5) of the vehicle in accordance with a control value that brings the actual vehicle state value into the normal vehicle state value (See col. 5, lines 50-67).

As to claims 5, 12, 18, Shinmura et al. disclose the controller controls the vehicle behavior by controlling a braking force applied to each of the wheels (See Fig. 35D; Fig. 36 S85, S86).

As to claims 6, 13, 17, Shinmura et al. disclose the vehicle operating member is a steering member of the vehicle (S1, S2 in Fig.2), the operation amount is an amount of operating the steering member, and the amount of correction is a corrected amount of operating the steering member (See Fig. 33, M7; Fig. 36, S81, S82) and also discloses a yaw rate considered as a normal yaw rate of the vehicle (See Figs. 24, 32).

As to claims 7, 14, 19, Shinmura et al. disclose the controller estimates an excess yaw moment acting on the vehicle, which is caused by a characteristic of a road surface on which a braking operation is applied to the vehicle, and estimates the corrected amount of operating the steering member based on the estimated excess yaw moment (See Figs. 24, 32).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8, 15, 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinmura et al. in view of Yamamoto et al. (U.S. Pub 20020075139).

As to claims 8, 15, 20, Shinmura et al. disclose all but fails to specifically disclose the controller determines whether the vehicle is running on the road surface having the characteristic of uneven friction coefficient during the braking operation, and estimates the excess yaw moment based on a target braking force to be applied to each wheel of the vehicle for the stable braking operation, which obtained on the assumption that the road surface has uniform friction coefficient and a braking force applied to each wheel of the vehicle, if it is determined that the braking operation is applied to the vehicle running on the road surface with the uneven friction coefficient. In an analogous art, Yamamoto et al. disclose a vehicle control apparatus and vehicle control method

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wherein it discloses the controller determines whether the vehicle is running on the road surface having the characteristic of uneven friction coefficient during the braking operation, and estimates the excess yaw moment based on a target braking force to be applied to each wheel of the vehicle for the stable braking operation, which obtained on the assumption that the road surface has uniform friction coefficient and a braking force applied to each wheel of the vehicle, if it is determined that the braking operation is applied to the vehicle running on the road surface with the uneven friction coefficient (See paragraph 0019, 0061-0062, 0068). It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Shinmura et al. with that of Yamamoto et al. by determining whether the vehicle is running on the road surface having the characteristic of uneven friction coefficient during the braking operation and estimates excess yaw moment ... since it would allow a control system that controls the running state of the vehicle.

### ***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Okuda et al. (U.S. Patent No. 5,321,616) disclose a vehicle control apparatus.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gertrude Arthur-Jeanglaude whose telephone number is

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(571) 272-6954. The examiner can normally be reached on Monday-Friday from 8:30 a.m. to 6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas Black can be reached on (571) 272-6956. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

GAJ

*GAS*

October 28, 2005

*Gertrude A. Jeanglaude*  
GERTRUDE A. JEANGLAUE  
PRIMARY EXAMINER